REMARKS

Applicant has amended claims 6, 10, 12, 13, 14, 20 and 24. No new matter has been added to the application as a result of these amendments.

In view of the above amendments and Applicant's comments stated herein, Applicant respectfully requests an early and favorable action on the merits.

Respectfully submitted,

Stanley P. Fisher

Registration Number 24,344

Juan Carlos A. Marquez

Registration No. 34,002

REED SMITH LLP

3110 Fairview Park Drive Suite 1400 Falls Church, Virginia 22042 (703) 641-4200 June 24, 2003

Marked Up Version of Claims

6. A substrate having a branching agent intramolecularly possessing 2 or more primary amino groups, bound thereto by means of the cross-linking agent of the substrate <u>having a cross-linking reagent represented by the following general formula (1) bound thereonto by means of a coupling agent comprising an active group:</u>

$$A - L - B \tag{1}$$

(wherein, A and B represent an identical or different group which reacts with an active group of the coupling agent comprising an active group, selected from an active ester group, isothiocyanate group, isocyanate group, imidazole group, carbodiimide group or aldehyde group, and wherein L is a linking group linking A and B, selected from a straight chain alkyl group, aryl group, allyl group or alkyl group having an amide group)according to claim 1, represented by A-L-B of general formula (1).

10. A substrate having a straight chain linker intramolecularly possess 2 primary amino groups bound thereto by means of the cross-linking reagent of the substrate <u>having a cross-linking reagent represented by the following general formula (1) bound thereonto by means of a coupling agent comprising an active group:</u>

$$\underline{\qquad A-L-B} \tag{1}$$

(wherein, A and B represent an identical or different group which reacts with an active group of the coupling agent comprising an active group, selected from an active ester group, isothiocyanate group, isocyanate group, imidazole group, carbodiimide group or aldehyde group, and wherein L is a linking group linking A and B, selected from a straight chain alkyl group, aryl group, allyl group or alkyl group having an amide group) according to claim-1 represented by A-L-B of general formula (1).

12. A substrate having a cross-linking reagent of the following general formula (1) further bound thereonto by means of the branching agent intramolecularly possessing 2 or more primary amino groups having a branching agent intramolecularly possessing 2 or more primary amino groups, bound thereto by means of the cross-linking agent of the substrate having a cross-linking reagent represented by the following general formula (1) bound

$$A - L - B \tag{1}$$

(wherein, A and B represent an identical or different group which reacts with an active group of the coupling agent comprising an active group, selected from an active ester group, isothiocyanate group, isocyanate group, imidazole group, carbodiimide group or aldehyde group, and wherein L is a linking group linking A and B, selected from a straight chain alkyl group, aryl group, allyl group or alkyl group having an amide group) according to claim 6.

13. A substrate for immobilization of a biological substance or medicament which has a biological substance or chemical substance, being an object of binding, immobilized thereon by means of the cross-linking agent of the substrate having a cross-linking reagent represented by the following general formula (1) bound thereonto by means of a coupling agent comprising an active group:

$$A - L - B \tag{1}$$

(wherein, A and B represent an identical or different group which reacts with an active group of the coupling agent comprising an active group, selected from an active ester group, isothiocyanate group, isocyanate group, imidazole group, carbodiimide group or aldehyde group, and wherein L is a linking group linking A and B, selected from a straight chain alkyl group, aryl group, allyl group or alkyl group having an amide group), according to claim 1, represented by general formula (1) A-L-B.

14. A method of immobilizing a biological substance or medicament which comprises immobilizing a biological substance or chemical substance on the substrate <u>having a crosslinking reagent represented by the following general formula (1) bound thereonto by means of a coupling agent comprising an active group:</u>

$$A - L - B \tag{1}$$

(wherein, A and B represent an identical or different group which reacts with an active group

of the coupling agent comprising an active group, selected from an active ester group, isothiocyanate group, isocyanate group, imidazole group, carbodiimide group or aldehyde group, and wherein L is a linking group linking A and B, selected from a straight chain alkyl group, aryl group, allyl group or alkyl group having an amide group).

according to claim 1.

20. A coating method which comprises reacting a branching agent intramolecularly possessing 2 or more primary amino groups with the substrate which comprises reacting a coupling agent comprising an active group on a substrate, and then reacting a cross-linking reagent represented by the following formula:

$$A - L - B \tag{1}$$

(wherein, A and B represent an identical or different group which reacts with an active group of the coupling agent comprising an active group, selected from an active ester group, isothiocyanate group, isocyanate group, imidazole group, carbodiimide group or aldehyde group, and wherein L is a linking group linking A and B, selected from a straight chain alkyl group, aryl group, allyl group or alkyl group having an amide group).according to claim 15.

24. A method of coating a substrate which comprises further reacting a cross-linking reagent of the following general formula (1) with the substrate which comprises reacting a branching agent intramolecularly possessing 2 or more primary amino groups with the substrate, wherein the branching agent is a compound having 2 or 3 primary amino groups represented by the following general formula (5):

$$\begin{array}{c}
R^{14} \\
\downarrow \\
R^{13} - N - R^{15}
\end{array} (5)$$

(wherein, R13, R14 and R15 are an identical or different group selected from alkyl group having a primary amino group, alkyl group or hydrogen atom, provided that 2 or 3 are alkyl groups having a primary amino group):

according to claim 21

$$A - L - B \tag{1}$$

(wherein, A and B represent an identical or different group which reacts with an active group of the coupling agent comprising an active group, selected from an active ester group, isothiocyanate group, isocyanate group, imidazole group, carbodiimide group or aldehyde group, and wherein L is a linking group linking A and B, selected from a straight chain alkyl group, aryl group, allyl group or alkyl group having an amide group).